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EXAMINER

VAUTROT, DENNIS L

ART UNIT	PAPER NUMBER
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2167

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/670,425	Applicant(s) LIU ET AL.	
	Examiner Dennis L. Vautrot	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/17/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/2003</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The Applicants' Information Disclosure statement (IDS), filed 24 September 2003, has been received and entered into the record. Since the IDS complies with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached form PTO-1449.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 10-17, 21-29, and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by **Call** (US Patent Application 2002/0161745).

4. Regarding claim 1, **Call** teaches a computer readable medium containing program instructions, which when executed by a computer, causes the computer to store metadata related to Web service entities by performing a method comprising: (a) browsing a Web service (See page 22, paragraph [0242] "A Web service engine...obtains product and company code domain name registration data from the

Art Unit: 2167

DNS zone files as seen at 1201. The search engine “walks” through the available and indexable product and copy data at each site as indicated at 1202.”); and (b) storing metadata relating to an entity of the Web service as a binding description in a format for assisting in an inspection of a site for available services (See page 21, paragraph [0235] “In order to facilitate the discovery and invocation of Web services made available by the manufacturer, a Web Services Inspection Language (WSIL) file is preferable placed in the root directory addressed by each company prefix or product code domain name, and by convention has the standard resource name ‘inspection.wsil.’” and page 22, paragraph [0243] “Having identified a potentially useful source of information, the user may access resource description files (such as Web Service Description Language Documents) to obtain the information needed to bind and invoke a particular Web service as seen at 1207”).

5. Regarding claim 2, **Call** teaches a format for assisting in the inspection of a site for available services is Web Services Inspection Language (See page 21, paragraph [0227] “Each Web service offered by a manufacturer may be described by a retrievable XML service description which conforms to Web Services Description Language (WSDL)...or by using the service identification XML documents published at provider’s websites which conform to WSIL, the Web Services Inspection Language...”)

6. Regarding claim 3, **Call** teaches the metadata is stored according to a schema. (See page 15, paragraphs [0167] and [0169] “Alternatively, the makeup of XML

Art Unit: 2167

documents which contain product or company information may be specified in an XML Schema..." and "Classes are organized in a hierarchy, with a collection of classes used for a particular purpose (such as the collection of classes describing a 'product' and/or the collection of classes describing a 'company') being called a 'schema.'")

7. Regarding claim 4, **Call** teaches the schema defines a namespace for identifying a location for the schema. (See page 21, paragraph [0228] "The elements for this language are defined in the schema namespace <http://schemas.xmlsoap.org/ws/2001/10/inpsection/>, which must be referenced by all WSIL documents.")

8. Regarding claim 10, **Call** teaches the metadata is related to contact information of business parties. (See page 12, paragraph [0122] "For example, retail merchants and distributors may advantageously use the company code portion of a universal product code to access a variety of useful information about the company generally, including contact information and distribution, shipping, and discount policies.")

9. Regarding claim 11, **Call** teaches the schema includes an element for specifying a Uniform Resource Locator indicating a location where the contact information may be found. (See page 12, paragraph [0123] "Thus, when a web browser issues a request directed to a URL including a company code domain name such as "123456.info," the DNS server (typically assigned by the customer's Internet service provider) responds with a corresponding IP address of an information server maintained by registered the

Art Unit: 2167

IP address corresponding to that company code based domain name with a DNS registration authority.”)

10. Regarding claim 12, **Call** teaches the metadata is related to a business assertion. (See page 12, paragraph [0122] “In this way, any retailer can use the web to obtain general information about a company while those retailers with established accounts with a particular vendor (as confirmed, for example, using digital signatures) may obtain private information which is hidden from the general public.”) Business assertions are interpreted to mean “a relationship link between two businesses” as provided in the specification.

11. Regarding claim 13, **Call** teaches storing metadata related to a first business as a binding description in a format for assisting in the inspection of a site for available services, wherein the stored metadata is related to the business assertion between the first business and a second business. (See page 22, paragraph [0239] “In step 1105, the purchasing module uses a standard transform to derive the domain name of the manufacturer’s server from a given product code and then, at step 1107, uses the domain name to obtain the IP address of the manufacturer’s server from the DNS, and at step 1109, obtains a resource description file from the manufacturer by sending a request message to that IP address... Later, when the product is received at the retailer from the manufacturer, the receiving module may invoke a different Web service at the manufacturer to confirm receipt and/or a payment by electronic funds transfer.”)

12. Regarding claim 14, **Call** teaches schema includes an element for specifying a Uniform Resource Locator for use in locating a Universal Description, Discovery and Integration registry at which the second business is registered. (See page 22, paragraph [0239] "...uses the domain name to obtain the IP address of the manufacturer's server from the DNS, and at step 1109, obtains a resource description file from the manufacturer by sending a request message to that IP address.")

13. Regarding claim 15, **Call** teaches the schema includes an element for specifying a unique identifier of the second business. (See page 19, paragraph [0203] "The availability of company information, which may be accessed using the company code portion of a universal product code, also makes it possible for the retailers to readily obtain specific information needed to purchase products directly from manufacturers, establish accounts, identify distributors, and the like.") Specifically, the "company code portion" is the unique ID.

14. Regarding claim 16, **Call** teaches the schema includes an element for specifying a status of the business assertion. (See page 22, paragraph [0239] "Later, when the product is received at the retailer from the manufacturer, the receiving module may invoke a different Web service at the manufacturer to confirm receipt and/or a payment by electronic funds transfer.")

15. Regarding claim 17, **Call** teaches the schema includes an element for specifying a type of the business assertion. (See page 22, paragraph [0239] "If so, the purchasing module transmits a request message to the IP address of the manufacturer sending a SOAP message having a format specified by the resource description files (typically a WSDL document describing the needed product ordering service))." Here, the type of business assertion is the product ordering service.

16. Regarding claim 21, **Call** teaches a method for storing metadata related to Web service entities comprising: (a) browsing a Web service (See page 22, paragraph [0242] "A Web service engine...obtains product and company code domain name registration data from the DNS zone files as seen at 1201. The search engine "walks" through the available and indexable product and copy data at each site as indicated at 1202."); and (b) storing metadata relating to an entity of the Web service as a binding description in a format for assisting in an inspection of a site for available services (See page 21, paragraph [0235] "In order to facilitate the discovery and invocation of Web services made available by the manufacturer, a Web Services Inspection Language (WSIL) file is preferable placed in the root directory addressed by each company prefix or product code domain name, and by convention has the standard resource name 'inspection.wsil.'" and page 22, paragraph [0243] "Having identified a potentially useful source of information, the user may access resource description files (such as Web Service Description Language Documents) to obtain the information needed to bind and invoke a particular Web service as seen at 1207").

17. Regarding claim 22, **Call** teaches a format for assisting in the inspection of a site for available services is Web Services Inspection Language (See page 21, paragraph [0227] "Each Web service offered by a manufacturer may be described by a retrievable XML service description which conforms to Web Services Description Language (WSDL)...or by using the service identification XML documents published at provider's websites which conform to WSIL, the Web Services Inspection Language...")

18. Regarding claim 23, **Call** teaches the metadata is stored according to a schema. (See page 15, paragraphs [0167] and [0169] "Alternatively, the makeup of XML documents which contain product or company information may be specified in an XML Schema..." and "Classes are organized in a hierarchy, with a collection of classes used for a particular purpose (such as the collection of classes describing a 'product' and/or the collection of classes describing a 'company') being called a 'schema.'")

19. Regarding claim 24, **Call** teaches the schema defines a namespace for identifying a location for the schema. (See page 21, paragraph [0228] "The elements for this language are defined in the schema namespace <http://schemas.xmlsoap.org/ws/2001/10/inpsection/>, which must be referenced by all WSIL documents.")

20. Regarding claim 25, **Call** teaches a Web services browsing system comprising:
(a) means for browsing a Web service (See page 22, paragraph [0242] "A Web service

Art Unit: 2167

engine...obtains product and company code domain name registration data from the DNS zone files as seen at 1201. The search engine "walks" through the available and indexable product and copy data at each site as indicated at 1202."); and (b) means for storing metadata relating to an entity of the Web service as a binding description in a format for assisting in an inspection of a site for available services (See page 21, paragraph [0235] "In order to facilitate the discovery and invocation of Web services made available by the manufacturer, a Web Services Inspection Language (WSIL) file is preferable placed in the root directory addressed by each company prefix or product code domain name, and by convention has the standard resource name 'inspection.wsil.'" and page 22, paragraph [0243] "Having identified a potentially useful source of information, the user may access resource description files (such as Web Service Description Language Documents) to obtain the information needed to bind and invoke a particular Web service as seen at 1207").

21. Regarding claim 26, **Call** teaches a format for assisting in the inspection of a site for available services is Web Services Inspection Language (See page 21, paragraph [0227] "Each Web service offered by a manufacturer may be described by a retrievable XML service description which conforms to Web Services Description Language (WSDL)...or by using the service identification XML documents published at provider's websites which conform to WSIL, the Web Services Inspection Language...")

22. Regarding claim 27, **Call** teaches the metadata is stored according to a schema.

(See page 15, paragraphs [0167] and [0169] "Alternatively, the makeup of XML documents which contain product or company information may be specified in an XML Schema..." and "Classes are organized in a hierarchy, with a collection of classes used for a particular purpose (such as the collection of classes describing a 'product' and/or the collection of classes describing a 'company') being called a 'schema.'")

23. Regarding claim 28, **Call** teaches the schema defines a namespace for identifying a location for the schema. (See page 21, paragraph [0228] "The elements for this language are defined in the schema namespace <http://schemas.xmlsoap.org/ws/2001/10/inpsection/>, which must be referenced by all WSIL documents.")

24. Regarding claim 29, **Call** teaches a computer readable medium containing program instructions, which when executed by a computer, causes the computer to resurrect a Web services-related entity by performing a method comprising: (a) presenting a display of metadata related to a plurality of Web services-related entities, wherein the display is based on a document formatted using a format for assisting in an inspection of a site for available services; (See page 2, paragraph [0015] "...the XML data from the manufacturer being displayed in accordance with an XSL stylesheet specification unique to each merchant...") (b) selecting a Web service-related entity of the plurality of Web service-related entities; and (c) processing the selected Web service-related entity. (See page 5, paragraph [0043] "Alternatively, resellers and others

Art Unit: 2167

may obtain email addresses from the product code translator which can be included in "mailto:" hypertext links in product listings, allowing a webpage viewer to display and complete a blank e mail request for information which is routed directly to the manufacturer's designated email address.") Examiner considers the web service related entity to be the email function. By routing the email, the web service-related entity is processed.

25. Regarding claim 30, **Call** teaches the format for assisting in the inspection of a site for available services is Web Services Inspection Language (See page 21, paragraph [0227] "Each Web service offered by a manufacturer may be described by a retrievable XML service description which conforms to Web Services Description Language (WSDL)...or by using the service identification XML documents published at provider's websites which conform to WSIL, the Web Services Inspection Language...")

26. Regarding claim 31, **Call** teaches the selected Web service-related entity is a Web Services Inspection Language document (See page 21, paragraph [0227] "Each Web service offered by a manufacturer may be described by a retrievable XML service description which conforms to Web Services Description Language (WSDL)...or by using the service identification XML documents published at provider's websites which conform to WSIL, the Web Services Inspection Language...") and processing step (c) further comprises opening the Web Services Inspection Language document. (See page 21, paragraph [0229] "Search engines as Google and Yahoo! may then readily

Art Unit: 2167

search for WSIL documents at entry points designated by product and company code based domain names...permitting users to perform indexed searches for desired Web services and other resources.”) Examiner interprets searching to be equivalent to the “opening” as referred to in the claim, considering the WSIL document cannot be searched without being opened.

27. Regarding claim 35, **Call** teaches a method for resurrecting a Web services-related entity comprising: (a) presenting a display of metadata related to a plurality of Web services-related entities, wherein the display is based on a document formatted using a format for assisting in an inspection of a site for available services; (See page 2, paragraph [0015] “...the XML data from the manufacturer being displayed in accordance with an XSL stylesheet specification unique to each merchant...”); (b) selecting a Web service-related entity of the plurality of Web service-related entities; and (c) processing the selected Web service-related entity. (See page 5, paragraph [0043] “Alternatively, resellers and others may obtain email addresses from the product code translator which can be included in “mailto:” hypertext links in product listings, allowing a webpage viewer to display and complete a blank e mail request for information which is routed directly to the manufacturer’s designated email address.”) Examiner considers the web service related entity to be the email function. By routing the email, the web service-related entity is processed.

Art Unit: 2167

Regarding claim 36, **Call** teaches a Web services browsing system comprising: a display for presenting information related to a plurality of Web service-related entities, the information based on a document formatted using a format for assisting in an inspection of a site for available services (See page 2, paragraph [0015] "...the XML data from the manufacturer being displayed in accordance with an XSL stylesheet specification unique to each merchant..."); means for selecting a Web service-related entity of the plurality of Web service-related entities; and means for processing the selected Web service-related entity. (See page 5, paragraph [0043] "Alternatively, resellers and others may obtain email addresses from the product code translator which can be included in "mailto:" hypertext links in product listings, allowing a webpage viewer to display and complete a blank e mail request for information which is routed directly to the manufacturer's designated email address.") Examiner considers the web service related entity to be the email function. By routing the email, the web service-related entity is processed.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 5 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Call** as applied to claim 4 above, and further in view of **Hickman** (US Patent Application Publication 2005/0144285).

30. Regarding claim 5, **Call** teaches a computer readable medium to store metadata substantially as claimed. **Call** fails to teach the metadata is related to a database containing data describing a networked service. However, **Hickman** teaches the metadata is related to a database containing data describing a networked service. (See page 1, paragraph 0010] "...there is provided [an] apparatus or finding TV Anytime web services comprising communicating means for querying via a network a known address and for obtaining a file from said address, said file having a predefined structure, and processing means for parsing said file to obtain URLs for TV Anytime web service description files.") It would have been obvious to one with ordinary skill in the art to apply the metadata store of **Call** with the networked service metadata of **Hickman** because of the growing prevalence and demands of networked services. It is for this reason that one of ordinary skill in the art would have been motivated to include the metadata is related to a database containing data describing a networked service.

31. Regarding claim 6, **Call** teaches a computer readable medium to store metadata substantially as claimed. **Call** fails to teach the database is a Universal Description, Discovery and Integration registry. However, **Hickman** teaches the database is a Universal Description, Discovery and Integration registry. (See page 1, paragraph

[0005] "A second method is the use of UDDI (Universal Description, Discovery and Integration). UDDI represents one technology for facilitating the discovery of web services.") One with ordinary skill in the art would have recognized that UDDI is one type of repository that is widely used and would be an efficient way of discovering web services. It is for this reason that one of ordinary skill in the art would have been motivated to have the database as a Universal Description, Discovery and Integration registry.

32. Regarding claim 7, **Call** teaches a computer readable medium to store metadata substantially as claimed. **Call** fails to teach the schema includes an element for specifying a Uniform Resource Locator for use in querying the Universal Description, Discovery and Integration registry. However, **Hickman** teaches the schema includes an element for specifying a Uniform Resource Locator for use in querying the Universal Description, Discovery and Integration registry. (See page 1, paragraph [0014] "...there is provided a server system for supplying URLs for TV Anytime web services via a network comprising receiving means for receiving a query, supplying means for supplying one or more URLs for TV Anytime web services in response to said query, and storing means for storing a categorized list of TV Anytime web services.") It would have been obvious to one with ordinary skill in the art to include a URL for querying as disclosed in **Hickman** because of the advantage provided by having separate URLs that can be easily changed or edited. It is for this reason that one of ordinary skill in the art would have been motivated to have the schema include an element for specifying a

Uniform Resource Locator for use in querying the Universal Description, Discovery and Integration registry.

33. Regarding claim 8, **Call** additionally teaches the schema includes an element for specifying a Uniform Resource Locator to which publish requests for the Universal Description, Discovery and Integration registry may be sent. (See page 19, paragraph [0201] "The shared product information server illustrated at 840, in its simplest form, does nothing more than make Internet accessible data storage space available where smaller manufacturers without their own servers can make product and company information available via the Internet.") Here the shared production information server is where the publish requests may be sent.

34. Regarding claim 9, **Call** additionally teaches the schema includes an element for specifying a Uniform Resource Locator to which registration requests for the Universal Description, Discovery and Integration registry may be sent. (See page 4, paragraph [0035] "The alphanumeric URL in the URL field of the URL table 213 is supplied via the registration template 207 when Internet location of the manufacturer's product description data is supplied during the registration process.")

35. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Call** as applied to claim 4 above, and further in view of **Burbeck et al.** (US Patent Application Publication 2003/0217140).

36. Regarding claim 18, **Call** teaches a computer readable medium to store metadata substantially as claimed. **Call** fails to teach the metadata is related to a UDDI tModel. However, **Burbeck et al.** teaches the metadata is related to a UDDI tModel. (See page 5, paragraph [0066] "A web service may optionally chose to implement a tModel instance...a tModel indicates the behaviors of specifications which are implemented by a web service.") One with ordinary skill in the art would have recognized the advantage of implementing the metadata store of **Call** using a tModel as disclosed in **Burbeck et al.** because it facilitates scanning the registry to make implementation easier. It is for this reason that one of ordinary skill in the art would have been motivated to include metadata related to a UDDI tModel.

37. Regarding claim 19, **Call** teaches a computer readable medium to store metadata substantially as claimed. **Call** fails to teach the schema includes an element for specifying a Uniform Resource Locator for use in querying a Universal Description, Discovery and Integration registry to find the UDDI tModel. However, **Burbeck et al.** teaches the schema includes an element for specifying a Uniform Resource Locator for use in querying a Universal Description, Discovery and Integration registry to find the UDDI tModel. (See page 5, paragraph [0066] "tModels may be used within the context of preferred embodiments of the present invention to specify the types of queries a web service supports. One or more content repositories 210...stores a node's local content and/or references to remotely-located content which may be accessed by the node

represented by run-time engine 220.”) Examiner interprets the reference to the remotely located content to be equivalent to the “element for specifying a URL”. It would have been obvious to one with ordinary skill in the art to include an element to specify a URL because it assists in locating the UDDI tModel. It is for this reason that one of ordinary skill in the art would have been motivated to have the schema include an element for specifying a Uniform Resource Locator for use in querying a Universal Description, Discovery and Integration registry to find the UDDI tModel.

38. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Call** and **Burbeck et al.** as applied to claim 18 above, and further in view of **Hickman-2** (US Patent Application Publication 2005/0198188). **Call** and **Burbeck et al.** teach a computer readable medium substantially as claimed. **Call** and **Burbeck et al.** fail to teach the schema includes an element for specifying a unique identifier for the UDDI tModel. However, **Hickman-2** teaches the schema includes an element for specifying a unique identifier for the UDDI tModel. (See page 2, paragraph [0027] “This service is registered with a UDDI node and is assigned a UUID (universally unique identifier) for that standard interface (using the UDDI save_tModel API”). One with ordinary skill in the art would recognize the advantage of including a unique identifier for the UDDI tModel in order to ease the interaction between the business parties. It is for this reason that one of ordinary skill in the art would have been motivated to have the schema include an element for specifying a unique identifier for the UDDI tModel.

39. Claims 32 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Call** as applied to claim 29 above, and further in view of **Hickman** (US Patent Application Publication 2005/0144285).

40. Regarding claim 32, **Call** teaches a computer readable medium substantially as claimed. **Call** fails to teach the selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises finding Web service related information at the registry. However, **Hickman** teaches the selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises finding Web service related information at the registry. (See page 1, paragraph [0005] "A second method is the use of UDDI (Universal Description, Discovery and Integration). UDDI represents one technology for facilitating the discovery of web services. By querying the repository a device is able to find web services that match a certain technical description and perhaps match some other taxonomy classification.") One with ordinary skill in the art would have recognized that UDDI is one type of repository that is widely used and would be an efficient way of finding web services. It is for this reason that one of ordinary skill in the art would have been motivated to have the database as a Universal Description, Discovery and Integration registry.

41. Regarding claim 33, **Call** teaches a computer readable medium substantially as claimed. **Call** fails to teach the selected Web service-related entity is a Universal

Description, Discovery and Integration registry and processing step (c) further comprises managing Web service related information at the registry. However, **Hickman** teaches the selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises managing Web service related information at the registry. (See page 1, paragraph [0014] "...there is provided a server system for supplying URLs for TV Anytime web services via a network comprising receiving means for receiving a query, supplying means for supplying one or more URLs for TV Anytime web services in response to said query, and storing means for storing a categorized list of TV Anytime web services.") It would have been obvious to one with ordinary skill in the art to have the UDDI registry include a step of managing Web service related information because of the effectiveness of UDDI based managing of this type of data. Here, receiving the query, supplying URLs and storing them is interpreted to be managing Web service related information. It is for this reason that one of ordinary skill in the art would have been motivated to have the selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises managing Web service related information at the registry.

42. Regarding claim 34, **Call** teaches a computer readable medium substantially as claimed. **Call** fails to teach said selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises publishing Web service related information to the registry. However,

Art Unit: 2167

Hickman teaches said selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises publishing Web service related information to the registry. (See page 1, paragraph [0014]

“...supplying means for supplying one or more URLs for TV Anytime web services in response to said query, and storing means for storing a categorized list of TV Anytime web services.”) It would have been obvious to one with ordinary skill in the art to have the UDDI registry include a step of publishing Web service related information in order to be able to make use of the results of the processing. Here, supplying URLs and storing them is interpreted to be “publishing Web service related information”. It is for this reason that one of ordinary skill in the art would have been motivated to have the selected Web service-related entity is a Universal Description, Discovery and Integration registry and processing step (c) further comprises publishing Web service related information at the registry.

Conclusion

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zhang et al. (US Patent Application Publication 2003/0217044) teaches storing metadata regarding Web services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dv
29 March 2006

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